

# Nuclear Material Stabilization and Disposition (RL-0011)

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*Completed Legacy holdup  
removal in gloveboxes*

HA-9C



HC-11

## Overview

This section addresses work in Project Baseline Summary RL-0011, *Nuclear Material Stabilization and Disposition*.

NOTE: Unless otherwise noted, all information contained herein is as of the end of May 2005.

## Notable Accomplishments

### Disposition the Plutonium Finishing Plant (PFP) Facility

**Legacy Holdup:** Disposition of a cumulative total of 82 percent of legacy plutonium holdup material was achieved in May, while a cumulative total of 90 percent of legacy plutonium holdup material was removed.

The eighth of ten equal increments to disposition the PFP legacy holdup material by September 30, 2005, was completed May 31, 2005, on schedule.

Legacy hold-up removal activities have been completed on gloveboxes HA-8, 9C, 9D, and HC-11.

**234-5Z:** Decontamination of five additional gloveboxes/hoods to low-level waste (LLW) criteria was completed, bringing the total to 29 gloveboxes/hoods now decontaminated to LLW criteria.

**Ancillary Facilities:** Completed 20-year contamination control caps on the areas that once contained the 2904-ZA and 2904-ZB buildings.

## FY 2005 Funds vs. Spend Forecast (\$M)

	Projected FY 2005 Funding	FY 2005 Fiscal Year Spend Forecast	Variance
Nuclear Materials Stabilization & Disposition	\$ 213.7	\$ 196.7	\$ 17.0

## FY 2005 Schedule/Cost Performance (\$M)

	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance \$	Schedule Variance %	Cost Variance \$	Cost Variance %	Budget At Completion
Nuclear Materials Stabilization & Disposition	\$126.9	\$115.9	\$117.3	-\$11.0	-8.6%	-\$1.4	-1.2%	\$207.4

Numbers are rounded to the nearest \$0.1M and include the closure services allocation.

## **FY 2005 Schedule/Cost Performance, continued**

**Schedule Performance (-\$11.0/-8.6%):** Primary contributors to the unfavorable schedule performance include:

- 232-Z glovebox Deactivation and Decommissioning (D&D) impacted by higher-than-anticipated volume of loose debris, requirements for process equipment removal, and decontamination of the incinerator glove box.
- 241-Z pre-existing condition cover block issue, subsequent resolution and recovery actions, and recent work package issues now resolved.
- Design and constructability issues supporting pencil tank removal work in the Plutonium Reclamation Facility (PRF).
- Delays in solid waste disposal activities and apportioned D&D Project Management due to overall delayed D&D activities.
- Delays in Special Nuclear Material (SNM) de-inventory due to new DOE direction on path forward yet to be implemented.
- Delays in 234-5Z process equipment removal due to clearance issues and follow-on training requirements.

**Cost Performance (-\$1.4M/-1.2%):** Primary contributors to the unfavorable cost variance include:

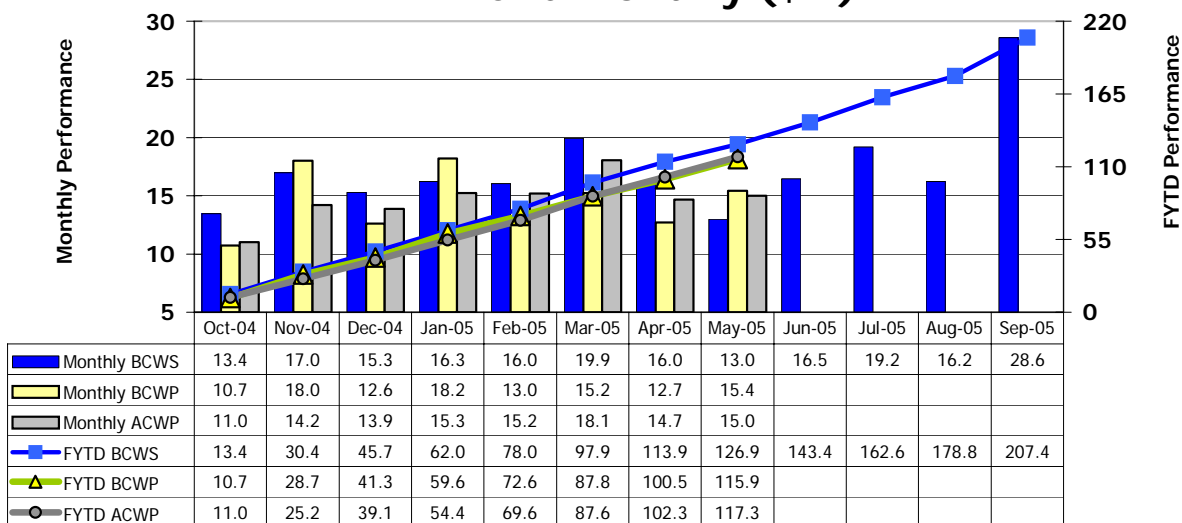
- Increased costs in 232-Z & 241-Z D&D work to support technical issue resolution and subsequent recovery actions.
- Fissile material movement outage, and use of overtime to recover schedule in legacy plutonium holdup removal and disposition activities.
- Increased Regulatory Compliance support, and increased labor effort to complete waste storage modifications.
- Increased costs for occupancy, dosimetry, and severance costs, coupled with production control initiatives.
- Unplanned costs for the Breathing Air Compressor Project.
- Higher than expected water tower demolition costs.

The above negative cost variances are partially offset by:

- Reduced solid waste disposal costs; efficiencies gained by using existing lab and SNM de-inventory teams to accelerate 234-5Z process equipment removal.
- Efficiencies in: (1) 236-Z project support and canyon tank planning and procurement; (2) 242-Z entry planning; (3) min-safe; and (4) closure services work.
- Lower cost in transition operations support due to reduced staffing levels.

## FY 2005 Schedule/Cost Performance, continued

### Performance Analysis FYTD and Monthly (\$M)



### Milestone Achievement

PBS	Number	Milestone Title	Type	Due Date	Actual Date	Forecast Date	Status/Comments
RL-0011	TRP-05-501 TRP-05-506	Discontinue Waste Discharges from the 241-Z Tanks to Tank Farms	TPA PI	6/30/05	12/8/04	-----	Complete
RL-0011	TRP-05-503	Complete Deinventory of DOE-STD-3013 Containers & Unirradiated Fuel by Shipment to SRS or Other Approved Location	PI	9/30/06		TBD	To Be Rebaselined
RL-0011	TRP-05-504	Remove and Disposition Pu Holdup in Process Equipment at PFP	PI	9/30/05		7/31/05	Ahead of Schedule
RL-0011	TRP-05-505	Transition 10 Facilities to Slab-on-Grade	PI	9/30/05	5/22/05	-----	Complete
RL-0011	TRP-06-500	Decontaminate Glovebox HA-20MB	PI	3/31/06	10/28/04	-----	Complete
RL-0011	TRP-06-501	Complete 100% Legacy Pu Holdup Removal and Disposition	TPA	9/30/06		7/31/05	Ahead of Schedule
RL-0011	TRP-06-507 TRP-06-502	Transition 232-Z Bldg Incinerator to Slab-on-Grade	PI TPA	3/31/06 9/30/06		3/31/06	On Schedule Ahead of Schedule
RL-0011	TRP-06-503	Remove Remaining SNM From PFP Such That Protected Area Not Required	PI	9/30/06		TBD	To Be Rebaselined
RL-0011	TRP-06-509	Disposition Miscellaneous PFP Nuclear Materials	PI	9/30/06		9/30/06	On Schedule

## Milestone Achievement, continued

PBS	Number	Milestone Title	Type	Due Date	Actual Date	Forecast Date	Status/ Comments
RL-0011	TRP-06-510	Transition 241-Z/ZA Facility to Demolition Ready	PI	9/30/06		9/30/06	On Schedule
RL-0011	TRP-06-511	Remove or Decontaminate 236-Z Pencil Tanks	PI	9/30/06		9/30/06	On Schedule
RL-0011	TRP-06-512	Remove or Decontaminate the 236-Z Process Equipment in Rooms 50 & 60	PI	9/30/06		9/30/06	On Schedule
RL-0011	TRP-06-513	Remove or Decontaminate the Remaining 236-Z Process Equipment	PI	9/30/06		9/30/06	On Schedule
RL-0011	TRP-06-514	Remove or Decontaminate 189 Gloveboxes and Hoods in 234-5Z	PI	9/30/06		9/30/06	On Schedule
RL-0011	TRP-06-515	Complete 242-Z Initial Entry & Characterization	PI	9/30/06		9/30/06	On Schedule
RL-0011	TRP-06-516	Cleanout Pu & Am Contaminated Gloveboxes and Tanks in 242-Z	PI	9/30/06		9/30/06	On Schedule
RL-0011	TRP-06-517	Dispose of Approximately 600 Pu Nitrate Containers at PFP	PI	9/30/06		9/30/06	On Schedule